

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Original) A method for making a plurality of waveguide resonator devices, the method comprising:
positioning a precursor resonator structure at a fixed separation from a plurality of waveguides; and
after the precursor resonator structure has been positioned relative to the waveguides, dividing the precursor resonator structure into a plurality of separate resonators, the precursor resonator structure being divided at locations between the waveguides.
2. (Original) The method of claim 1, wherein the precursor resonator structure is divided by cutting the precursor resonator structure at locations between the waveguides.
3. (Original) The method of claim 2, wherein the precursor resonator structure is mechanically cut with an abrasive tool.
4. (Original) The method of claim 3, wherein the abrasive tool is a wire saw.
5. (Original) The method of claim 1, wherein the precursor resonator structure is elongated.
6. (Original) The method of claim 5, wherein the precursor resonator structure is cylindrical.
7. (Original) The method of claim 5, wherein the precursor resonator structure is tubular.

8. (Original) The method of claim 5, wherein the precursor resonator structure is cut at a plurality of locations spaced-apart along a longitudinal axis of the precursor resonator structure.
9. (Original) The method of claim 1, wherein the precursor resonator structure includes drawn glass or plastic.
10. (Original) The method of claim 1, wherein the precursor resonator structure includes an optical fiber.
11. (Original) The method of claim 1, wherein the precursor resonator structure includes a glass or plastic capillary.
12. (Original) The method of claim 1, further comprising depositing the waveguides on a substrate, depositing a spacer layer over the waveguides, and fixing the precursor resonator structure relative to the waveguides by securing the precursor resonator structure to the spacer layer.
13. (Original) The method of claim 1, wherein the precursor resonator structure is positioned at a fixed spacing relative to a plurality of sets of waveguides, and wherein the precursor resonator structure is divided at locations between the sets of waveguides such that the separate resonators are coupled to separate sets of waveguides.
14. (Currently amended) A method for fabricating a plurality of waveguide resonator devices, the method comprising:
providing a substrate supporting a plurality of waveguides;
providing spacer layers;
providing mounting a precursor resonator structure to the substrate with the precursor resonator structure extending across the waveguides and separated from the waveguides by the spacer layers; and
cutting the precursor resonator structure and the substrate into a plurality of pieces to provide a plurality of ring resonators resonator devices, each of the ring resonator devices

including a portion of the substrate, a portion of the precursor resonator structure, at least one of the waveguides and at least one of the spacer layers.

15. (Original) The method of claim 14, wherein the precursor resonator structure comprises an optical fiber.

16. (Original) The method of claim 14, wherein the precursor resonator structure comprises a capillary.

17. (Original) The method of claim 14, wherein the precursor resonator structure comprises a coated optical fiber.

18. (Canceled)

19. (Original) The method of claim 14, wherein the precursor resonator structure comprises an optical fiber coated with a material adapted to encourage bacterial growth.

20. (Original) The method of claim 14, wherein the precursor resonator structure comprises a tube filled with a material having a refractive index that can be modified with an applied field.

21.-25. (Canceled)

26. (New) The method of claim 14, wherein the precursor resonator structure and the substrate are cut with straight cuts located between the waveguides.

27. (New) The method of claim 26, wherein the straight cuts are generally perpendicular to a longitudinal axis of the precursor resonator structure.

28. (New) The method of claim 14, wherein the spacer layers have thicknesses in the range of .05-2 microns.

29. (New) The method of claim 14, wherein the spacer layers include a material selected from the group comprising silicon dioxide or fluorinated glass.
30. (New) The method of claim 14, wherein the precursor resonator structure and the substrate are cut with a saw.
31. (New) A method for fabricating a plurality of waveguide resonator devices, the method comprising:
- providing a first substrate supporting a plurality of first waveguides;
 - providing a second substrate supporting a plurality of second waveguides;
 - providing spacer layers;
 - mounting a precursor resonator structure between the first and second substrates with the precursor resonator structure extending across the waveguides and separated from the waveguides by the spacer layers; and
 - cutting the precursor resonator structure and the first and second substrates into a plurality of pieces to provide the plurality of ring resonator devices, each of the ring resonator devices including a portion of the first substrate, a portion of the second substrate, a portion of the precursor resonator structure, at least two of the waveguides and at least two of the spacer layers.